FREIGHT NEWS

Freight Transportation Profile—Texas Freight Analysis Framework

Understanding future freight activity is important for matching infrastructure supply to demand and for assessing potential investment and operational strategies. To help decisionmakers identify areas in need of capacity improvements, the U.S. Department of Transportation developed the Freight Analysis Framework (FAF), a comprehensive national database and analysis tool that examines freight flows for the truck, rail, water, and air modes. FAF also forecasts freight activity in 2010 and 2020 for each of these modes. Information about the methodology used in developing FAF is available on the Office of Freight Management and Operations' website www.ops.fhwa.dot.gov/freight.

The U.S. freight transportation network moves a staggering volume of goods each year. Over 15 billion tons of goods, worth over $9 trillion were moved in 1998. The movement of bulk goods, such as grains, coal, and ores, still comprises a large share of the tonnage moved on the U.S. freight network. However, lighter and more valuable goods, such as computers and office equipment, now make up an increasing proportion of what is moved. FAF estimates that trucks carried about 71 percent of the total tonnage and 80 percent of the total value of U.S. shipments in 1998. By 2020, the U.S. transportation system is expected to handle about 23 billion tons of cargo valued at nearly $30 trillion.

Texas

Table 1 presents information on freight shipments that have either an origin or a destination in Texas. As shown in the table, trucks moved a large percentage of the tonnage and value of shipments, followed by rail. Figures 1 and 2 show freight flows on the highway and rail modes.

Truck traffic is expected to grow throughout the state over the next 20 years. Much of the growth will occur in urban areas and on the Interstate highway system (Figures 3 and 4). Truck traffic moving to and from Texas accounted for 20 percent of the average annual daily truck traffic (AADTT) on the FAF road network. Approximately 27 percent of truck traffic involved in-state shipments, and 13 percent involved trucks traveling across the state to other markets. Forty-one percent of the AADTT were not identified with a route-specific origin or destination.

International trade moving through Texas is expected to grow at a faster pace than domestic trade over the next 20 years. U.S.-Mexico trade crossing the state's numerous border facilities will be one of the fastest growing segments.

Table 2 shows the top five commodity groups shipped to, from, and within Texas by all modes. The top commodities by weight are products related to natural resources and minerals. By value, the top commodities are chemical products and transportation equipment.

Table 1. Freight Shipments To, From, and Within Texas: 1998, 2010, and 2020

TEXAS	Tons (millions)			Value (billions $)		
	1998	2010	2020	1998	2010	2020
State Total	1,764	2,444	2,990	1,125	2,243	3,673
By Mode						
Air	2	4	5	113	265	472
Highway	1,008	1,483	1,872	841	1,681	2,756
Other[a]	358	424	485	46	65	92
Rail	282	388	473	102	191	295
Water	113	145	155	23	42	58
By Destination/Market						
Domestic	1,258	1,749	2,114	892	1,707	2,720
International	506	694	876	233	536	953

Note: Modal numbers may not add to totals due to rounding.

[a] The "Other" category includes international shipments that moved via pipeline or by an unspecified mode.

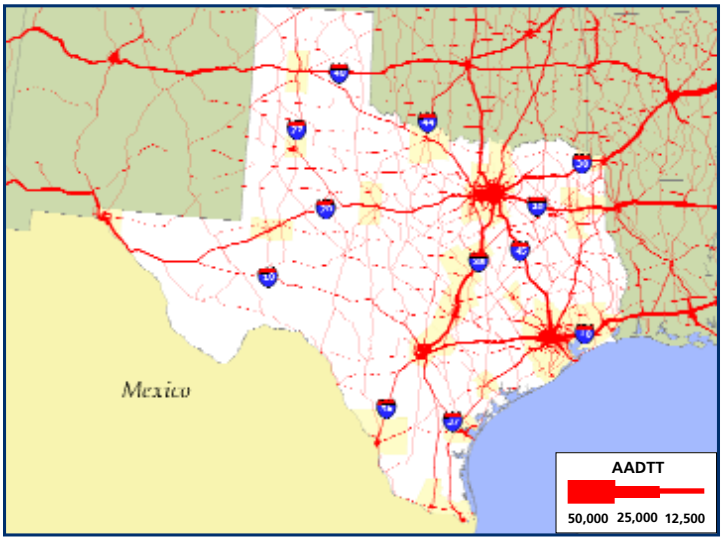
Figure 1. Freight Flows To, From, and Within Texas by Truck: 1998 (tons)

Federal Highway Administration

Figure 2. Freight Flows To, From, and Within Texas by Rail: 1998 (tons)

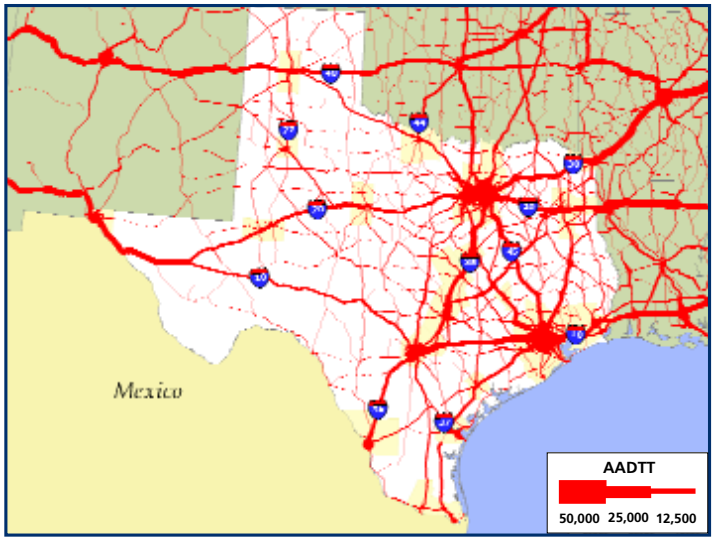
Federal Railroad Administration

Figure 3. Estimated Average Annual Daily Truck Traffic: 1998



Federal Highway Administration

Figure 4. Estimated Average Annual Daily Truck Traffic: 2020



Federal Highway Administration

Table 2. Top Five Commodities Shipped To, From, and Within Texas by All Modes: 1998 and 2020

Commodity	Tons (millions)		Commodity	Value (billions $)	
	1998	2020		1998	2020
Crude Petroleum/Natural Gas	320	391	Chemicals/Allied Products	196	541
Petroleum/Coal Products	235	342	Transportation Equipment	175	404
Nonmetallic Materials	230	278	Food/Kindred Products	127	505
Chemicals/Allied Products	214	376	Machinery	82	344
Food/Kindred Products	135	329	Secondary Traffic[a]	75	315

[a] Secondary traffic is defined as freight flows to and from distribution centers or through intermodal facilities. No commodities are assigned to this intermediate step in the transportation process.

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A series of FAF products are available on the website noted below. FAF outputs include freight flow maps for states, modes, and gateways; detailed databases on traffic flows and commodity movements; information on the methodologies used to develop FAF; and forecast assumptions.

The U.S. Department of Transportation, Bureau of Transportation Statistics (BTS) is also developing a series of state transportation profiles. For more information and to obtain a copy of the BTS reports, please call 202-366-DATA.

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